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RAW SEQUENCE LISTING

DATE: 12/13/2002

PATENT APPLICATION: US/09/673,274B

TIME: 14:37:45

Input Set : A:\#416412 v1 - A33595-PCT-USA Revised Sequence Listing.txt
Output Set: N:\CRF4\12132002\I673274B.raw

4 <110> APPLICANT: Lamberty, Mireille
5 Bulet, Phillipe
6 Brookhart, Gary
7 Hoffman, Jules
9 <120> TITLE OF INVENTION: GENE CODING FOR HELIOMICINE, AND USE THEREOF
11 <130> FILE REFERENCE: A33595-PCT-USA (0726667.0166)
13 <140> CURRENT APPLICATION NUMBER: 09/673,274B
14 <141> CURRENT FILING DATE: 1999-04-12
16 <150> PRIOR APPLICATION NUMBER: PCT/FR99/00843
17 <151> PRIOR FILING DATE: 1999-04-12
19 <150> PRIOR APPLICATION NUMBER: FR 98 04933
20 <151> PRIOR FILING DATE: 1998-04-15
22 <160> NUMBER OF SEQ ID NOS: 48
24 <170> SOFTWARE: FastSEQ for Windows Version 4.0
26 <210> SEQ ID NO: 1
27 <211> LENGTH: 147
28 <212> TYPE: DNA
29 <213> ORGANISM: Artificial Sequence
31 <220> FEATURE:
32 <223> OTHER INFORMATION: Synthetic oligonucleotide
34 <400> SEQUENCE: 1
35 agcttgata aaagagacaa gttgattggc agctgtgttt gggcgccgt caactacact 60
36 agtgactgca acggcgagt caagcgccgc ggtacaagg gtggccattg tggatccttc 120
37 gctaacgta actgttggtg tgaacc 147
39 <210> SEQ ID NO: 2
40 <211> LENGTH: 169
41 <212> TYPE: DNA
42 <213> ORGANISM: Artificial Sequence
44 <220> FEATURE:
45 <223> OTHER INFORMATION: Synthetic oligonucleotide
47 <400> SEQUENCE: 2
48 gataagctta tcggttcctg cgtgtgggt gctgtgaact aacttccga ttgcaacggt 60
49 gagtgaaga ggaggggta caagggtgt cactgcggtt ccttcgctaa cgtgaactgc 120
50 tggtagcaga cttgagagct cggcgaggcg aacgtgtcga cggatccgg 169
52 <210> SEQ ID NO: 3
53 <211> LENGTH: 261
54 <212> TYPE: DNA
55 <213> ORGANISM: Artificial Sequence
57 <220> FEATURE:
58 <223> OTHER INFORMATION: Synthetic oligonucleotide
60 <400> SEQUENCE: 3
61 ccattgggtt cgtgcttttc tctcagcttc catctttcct tcttgtgtct actcttcttc 60
62 ttttccttgt gatctctcac tcttgccgtg ccgataagct tatcgggttc tgcgtgtggg 120

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63 gtgctgtgaa ctacacttcc gattgcaacg gtgagtgcaa gaggaggggt tacaaggggt 180
64 gtcactgcfg ttccttcgct aacgtgaact gctgggtgca gacttgagag ctcggcgagg 240
65 cgaacgtgtc gacggatccg g                                     261
67 <210> SEQ ID NO: 4
68 <211> LENGTH: 120
69 <212> TYPE: DNA
70 <213> ORGANISM: Artificial Sequence
72 <220> FEATURE:
73 <223> OTHER INFORMATION: Synthetic oligonucleotide
75 <400> SEQUENCE: 4
76 gcgtcgacgc gatgggttct gtgcttttct ctcagcttcc atctttcctt cttgtgtcta 60
77 ctcttttct tttccttgct atctctcact cttgccgtgc tggagacgcg aattcacaca 120
80 <210> SEQ ID NO: 5
81 <211> LENGTH: 75
82 <212> TYPE: DNA
83 <213> ORGANISM: Artificial Sequence
85 <220> FEATURE:
86 <223> OTHER INFORMATION: Synthetic oligonucleotide
88 <400> SEQUENCE: 5
89 gcgtcgacgc gatgggttct gtgcttttct ctcagcttcc atctttcctt cttgtgtcta 60
90 ctcttttct tttcc                                     75
92 <210> SEQ ID NO: 6
93 <211> LENGTH: 72
94 <212> TYPE: DNA
95 <213> ORGANISM: Artificial Sequence
97 <220> FEATURE:
98 <223> OTHER INFORMATION: Synthetic oligonucleotide
100 <400> SEQUENCE: 6
101 tcgccggcac ggcaagagta agagatcaca aggaaaagaa gaagagtaga cacaagaagg 60
102 aaagatggaa gc                                     72
104 <210> SEQ ID NO: 7
105 <211> LENGTH: 80
106 <212> TYPE: DNA
107 <213> ORGANISM: Artificial Sequence
109 <220> FEATURE:
110 <223> OTHER INFORMATION: Synthetic oligonucleotide
112 <400> SEQUENCE: 7
113 gataagctta tcggttctcg cgtgtgggggt gctgtgaact acacttccga ttgcaacggg 60
114 gagtgcaaga ggaggggtta                                     80
116 <210> SEQ ID NO: 8
117 <211> LENGTH: 109
118 <212> TYPE: DNA
119 <213> ORGANISM: Artificial Sequence
121 <220> FEATURE:
122 <223> OTHER INFORMATION: Synthetic oligonucleotide
124 <400> SEQUENCE: 8
125 ccgatccgt cgacacgttc gctctgccga gctctcaagt ctgcaccag cagttcacgt 60
126 tagcgaagga accgcagtga ccacccttgt aaccctctct cttgcactc 109
128 <210> SEQ ID NO: 9

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Input Set : A:\#416412 v1 - A33595-PCT-USA Revised Sequence Listing.txt

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129 <211> LENGTH: 85
130 <212> TYPE: DNA
131 <213> ORGANISM: Artificial Sequence
133 <220> FEATURE:
134 <223> OTHER INFORMATION: Synthetic oligonucleotide
136 <400> SEQUENCE: 9
137 agggccccct agggtttaa cggccagtca ggccgaattc gagctcggta cccggggatc 60
138 ctctagagtc gacctgcagg catgc 85
140 <210> SEQ ID NO: 10
141 <211> LENGTH: 66
142 <212> TYPE: DNA
143 <213> ORGANISM: Artificial Sequence
145 <220> FEATURE:
146 <223> OTHER INFORMATION: Synthetic oligonucleotide
148 <400> SEQUENCE: 10
149 ccctgaacca ggctcgaggg cgcgccttaa ttaaagctt gcatgcctgc aggtcgactc 60
150 tagagg 66
152 <210> SEQ ID NO: 11
153 <211> LENGTH: 93
154 <212> TYPE: DNA
155 <213> ORGANISM: Artificial Sequence
157 <220> FEATURE:
158 <223> OTHER INFORMATION: Synthetic oligonucleotide
160 <400> SEQUENCE: 11
161 ccggccagtc agccacact taattaagt taaacgcggc cccggcgcgc ctaggtgtgt 60
162 gctcgagggc ccaacctcag tacctggttc agg 93
164 <210> SEQ ID NO: 12
165 <211> LENGTH: 93
166 <212> TYPE: DNA
167 <213> ORGANISM: Artificial Sequence
169 <220> FEATURE:
170 <223> OTHER INFORMATION: Synthetic oligonucleotide
172 <400> SEQUENCE: 12
173 ccggcctgaa ccaggtactg aggttgggcc ctcgagcaca cacctaggcg cgccggggcc 60
174 gcgtttaaac ttaattaagt gtggcctgac tgg 93
176 <210> SEQ ID NO: 13
177 <211> LENGTH: 50
178 <212> TYPE: DNA
179 <213> ORGANISM: Artificial Sequence
181 <220> FEATURE:
182 <223> OTHER INFORMATION: Synthetic oligonucleotide
184 <400> SEQUENCE: 13
185 ggtctagaat ggctgcacc aacaacgcca tgaggccct cttcctctc 50
187 <210> SEQ ID NO: 14
188 <211> LENGTH: 50
189 <212> TYPE: DNA
190 <213> ORGANISM: Artificial Sequence
192 <220> FEATURE:
193 <223> OTHER INFORMATION: Synthetic oligonucleotide

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195 <400> SEQUENCE: 14
196 ccgaattcgg cgccgtgcac gatgcagaag agcaccgagga ggaagagggc          50
198 <210> SEQ ID NO: 15
199 <211> LENGTH: 81
200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Synthetic oligonucleotide
206 <400> SEQUENCE: 15
207 tctagaatgg cctgcaccaa caacgccatg agggccctct tcctcctcct gctcttctgc 60
208 atcgtgcacg gcgccgaatt c          81
210 <210> SEQ ID NO: 16
211 <211> LENGTH: 24
212 <212> TYPE: DNA
213 <213> ORGANISM: Artificial Sequence
215 <220> FEATURE:
216 <223> OTHER INFORMATION: Synthetic oligonucleotide
218 <400> SEQUENCE: 16
219 gataagctta tcggttcctg cgtg          24
221 <210> SEQ ID NO: 17
222 <211> LENGTH: 32
223 <212> TYPE: DNA
224 <213> ORGANISM: Artificial Sequence
226 <220> FEATURE:
227 <223> OTHER INFORMATION: Synthetic oligonucleotide
229 <400> SEQUENCE: 17
230 ggctcgagtc aagtctcgca ccagcagttc ac          32
232 <210> SEQ ID NO: 18
233 <211> LENGTH: 213
234 <212> TYPE: DNA
235 <213> ORGANISM: Artificial Sequence
237 <220> FEATURE:
238 <223> OTHER INFORMATION: Synthetic oligonucleotide
240 <400> SEQUENCE: 18
241 tctagaatgg cctgcaccaa caacgccatg agggccctct tcctcctcct gctcttctgc 60
242 atcgtgcacg gcgataagct tatcggttcc tgcgtgtggg gtgctgtgaa ctacacttcc 120
243 gattgcaacg gtgagtgcaa gaggaggggt tacaaggggtg gtcactgcgg ttccttcgct 180
244 aacgtgaact gctggtgcga gacttgactc gag          213
246 <210> SEQ ID NO: 19
247 <211> LENGTH: 838
248 <212> TYPE: DNA
249 <213> ORGANISM: Artificial Sequence
251 <220> FEATURE:
252 <223> OTHER INFORMATION: Synthetic oligonucleotide
W--> 254 <221> NAME/KEY: promoter
255 <222> LOCATION: (7)...(532)
W--> 257 <221> misc_structure
258 <222> LOCATION: (533)...(568)
W--> 260 <221> terminator

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Input Set : A:\#416412 v1 - A33595-PCT-USA Revised Sequence Listing.txt
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261 <222> LOCATION: (569)...(832)
 W--> 263 <400> 19
 264 aagcttccag aaggtaatta tccaagatgt agcatcaaga atccaatggt tacgggaaaa 60
 265 actatggaag tattatgtga gctcagcaag aagcagatca atatgaggca catatgcaac 120
 266 ctatgttcaa aatgaagaa tgtacagata caagatccta tactgccaga atacgaagaa 180
 267 gaatacgtag aaattgaaaa agaagaacca ggcgaagaaa agaattctga agacgtaagc 240
 268 actgacgaca acaatgaaaa gaagaagata aggtcgggtga ttgtgaaaga gacatagagg 300
 269 acacatgtaa ggtggaaaat gtaagggcgg aaagtaacct tatcaciaag gaatcttacc 360
 270 cccactact taccctttta ttttttccg tgtcattttt gcccttgagt tttcctatat 420
 271 aaggaaccaa gttcggcatt tgtgaaaaca agaaaaaatt tgggtgtaagc tttttcttt 480
 272 gaagtactga ggatacaact tcagagaaat ttgtaagttt gtagatctcg attctagaag 540
 273 gctgaattc gagctcggta ccggatccaa ttcccgatcg ttcaaaccatt tggcaataaa 600
 274 gtttcttaag attgaatcct gttgcccgtc ttgcatgat tatcatataa tttctgttga 660
 275 attacgttaa gcatgtaata attaacatgt aatgcatgac gttatttatg agatgggttt 720
 276 ttatgattag agtcccgcaa ttatacattt aatagcgcg agaaaacaaa atatagcgcg 780
 277 caaactagga taaattatcg cgcgcggtgt catctatggt actagatcgg ggatcgt 838
 279 <210> SEQ ID NO: 20
 280 <211> LENGTH: 1036
 281 <212> TYPE: DNA
 282 <213> ORGANISM: Artificial Sequence
 284 <220> FEATURE:
 285 <223> OTHER INFORMATION: Synthetic oligonucleotide
 W--> 287 <221> NAME/KEY: promoter
 288 <222> LOCATION: (7)...(532)
 W--> 290 <221> CDS
 291 <222> LOCATION: (539)...(736)
 W--> 293 <221> terminator
 294 <222> LOCATION: (767)...(1030)
 W--> 296 <400> 20
 297 aagcttccag aaggtaatta tccaagatgt agcatcaaga atccaatggt tacgggaaaa 60
 298 actatggaag tattatgtga gctcagcaag aagcagatca atatgaggca catatgcaac 120
 299 ctatgttcaa aatgaagaa tgtacagata caagatccta tactgccaga atacgaagaa 180
 300 gaatacgtag aaattgaaaa agaagaacca ggcgaagaaa agaattctga agacgtaagc 240
 301 actgacgaca acaatgaaaa gaagaagata aggtcgggtga ttgtgaaaga gacatagagg 300
 302 acacatgtaa ggtggaaaat gtaagggcgg aaagtaacct tatcaciaag gaatcttacc 360
 303 cccactact taccctttta ttttttccg tgtcattttt gcccttgagt tttcctatat 420
 304 aaggaaccaa gttcggcatt tgtgaaaaca agaaaaaatt tgggtgtaagc tttttcttt 480
 305 gaagtactga ggatacaact tcagagaaat ttgtaagttt gtagatctcg attctaga 538
 306 atg gcc tgc acc aac aac gcc atg agg gcc ctc ttc ctc ctc gtg ctc 586
 307 Met Ala Cys Thr Asn Asn Ala Met Arg Ala Leu Phe Leu Leu Val Leu
 308 1 5 10 15
 310 ttc tgc atc gtg cac ggc gat aag ctt atc ggt tcc tgc gtg tgg ggt 634
 311 Phe Cys Ile Val His Gly Asp Lys Leu Ile Gly Ser Cys Val Trp Gly
 312 20 25 30
 314 gct gtg aac tac act tcc gat tgc aac ggt gag tgc aag agg agg ggt 682
 315 Ala Val Asn Tyr Thr Ser Asp Cys Asn Gly Glu Cys Lys Arg Arg Gly
 316 35 40 45
 318 tac aag ggt ggt cac tgc ggt tcc ttc gct aac gtg aac tgc tgg tgc 730
 319 Tyr Lys Gly Gly His Cys Gly Ser Phe Ala Asn Val Asn Cys Trp Cys

RAW SEQUENCE LISTING ERROR SUMMARY
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:39; Xaa Pos. 1,2,3,4,5,6,7,8,9,10,12,13,14,15,16,17,18,19,20,21,23,24
Seq#:39; Xaa Pos. 25,27,28,29,30,31,32,33,34,35,37,38,39,40,41,42,43,45,47
Seq#:39; Xaa Pos. 48,49,50,51
Seq#:40; Xaa Pos. 2,3,4,5,6,7
Seq#:42; Xaa Pos. 1,2,3,4,5,6,7,8,9,11
Seq#:43; Xaa Pos. 2,3,4,5,6,7,8,9
Seq#:44; Xaa Pos. 2,3,4,5,6
Seq#:45; Xaa Pos. 2,3,4,5